Message

From: Crosby-Vega, Terri [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E439D8D14EAF4F8DA8661E95A3037052-CROSBY-VEGA, TERRI]

Sent: 4/20/2017 11:39:26 AM

To: Craig, Harry [Craig.Harry@epa.gov]

Subject: RE: April 11, 2017 Open Burning At Holston Army Ammunition Plant-Photo for your records

Thanks for all the information that you provide. I upload it to the OneDrive file shared with the contractor.

Terri Crosby-Vega Environmental Engineer

USEPA Region 4
Atlanta Federal Center 9T25
61 Forsyth Street SW
Atlanta, GA 30303
404-562-8497

From: Craig, Harry

Sent: Wednesday, April 19, 2017 7:01 PM

To: Gaines, Jeff < Gaines.Jeff@epa.gov>; Shuster, Kenneth < Shuster.Kenneth@epa.gov>

Cc: Crosby-Vega, Terri <Crosby-Vega.Terri@epa.gov>; Kohler, Amanda <Kohler.Amanda@epa.gov>; Diane Dopkin

<diane.dopkin@emsus.com>

Subject: RE: April 11, 2017 Open Burning At Holston Army Ammunition Plant-Photo for your records

Jeff,

The China Lake analysis of alternatives to OB/OD for energetic materials wastes streams is one of the better analyses I have seen. It includes both bulk explosives and cased munitions.

Harry

From: Gaines, Jeff

Sent: Wednesday, April 19, 2017 10:46 AM

To: Craig, Harry < Craig. Harry@epa.gov >; Shuster, Kenneth < Shuster. Kenneth@epa.gov >

Cc: Crosby-Vega, Terri < Crosby-Vega.Terri@epa.gov >; Kohler, Amanda < Kohler.Amanda@epa.gov > **Subject:** RE: April 11, 2017 Open Burning At Holston Army Ammunition Plant-Photo for your records

Harry,

Thanks so much for this info.

We just got off the phone with our contractor (EMS, Inc) on a status update on a task order we have them working on – identifying existing alternative treatment technologies to OB/OD. We've been forwarding them materials you've been providing us.

Deliberative Process / Ex. 5

On future emails you are sending Ken and myself on alternative treatment technologies, please cc: EMS at diane.dopkin@emsus.com.



Thanks!

Jeff Gaines

Phone: 703-308-8655

"The most exciting phrase to hear in science, the one that heralds the most discoveries, is not "Eureka!" (I found it!) but 'That's funny.'" — Issuection as

"Dulce et Decorum Est Desipere in Loco" --- Josiah S. Carberry

From: Craig, Harry

Sent: Wednesday, April 19, 2017 1:35 PM

To: Shuster, Kenneth < Shuster. Kenneth@epa.gov>

Cc: Gaines, Jeff <Gaines.Jeff@epa.gov>; Crosby-Vega, Terri <Crosby-Vega.Terri@epa.gov>

Subject: RE: April 11, 2017 Open Burning At Holston Army Ammunition Plant-Photo for your records

Ken,

Here is another good example of full scale treatment of alkaline (base) hydrolysis of rocket propellants containing energetics such as HMX, NG, and ammonium perchlorate.

Harry

From: Craig, Harry

Sent: Wednesday, April 19, 2017 8:45 AM

To: Shuster, Kenneth < Shuster. Kenneth@epa.gov >

Cc: Gaines, Jeff <Gaines.Jeff@epa.gov>; Crosby-Vega, Terri <Crosby-Vega.Terri@epa.gov>

Subject: FW: April 11, 2017 Open Burning At Holston Army Ammunition Plant-Photo for your records

Ken,

I'm not convinced that SCWO is the preferred technology in this situation. SCWO requires that wastes be in slurry form to treat it, and the process is very corrosive to materials and has problems with salt build up. I believe that rotary kiln incineration w/air pollution controls or alkaline hydrolysis would be effective and far less expensive technologies as alternatives to treat bulk RDX, HMX, and PBXs, and materials contaminated with these energetics.

Holston AAP manufactures RDX and HMX in the U.S. Probably should check what RCRA and Air Permits (if any) that Holston AAP currently has.

Regards,

Harry

From: Mark Toohey [mailto Personal Email / Ex. 6 pgmail.com]

Sent: Tuesday, April 18, 2017 6:05 PM

To: Akers, Brad <<u>Akers.Brad@epa.gov</u>>; Craig, Harry <<u>Craig.Harry@epa.gov</u>>; Crosby-Vega, Terri <<u>Crosby-</u> Vega.Terri@epa.gov>; curry.ron@epa.gov; Feely, Ken <Feely.Ken@epa.gov>; Gaines, Jeff <Gaines.Jeff@epa.gov>; Galbraith, Michael <Galbraith.Michael@epa.gov>; Gray, David <gray.david@epa.gov>; lesser.ben@epa.gov; Cooke, Maryt <Cooke.Maryt@epa.gov>; Page, Lee <Page.Lee@epa.gov>; Palumbo, Janice <Palumbo.Jan@epa.gov>; Gerhard, Sasha <Gerhard.Sasha@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>; Wanslow, Julie <Wanslow.Julie@epa.gov>; Waterson, Sara <Waterson.Sara@epa.gov>; Watson, Sarah <Watson.Sarah@epa.gov>; Garfinkel, Wayne <Garfinkel.Wayne@epa.gov>; Wilson, Michaelle <Wilson.Michaelle@epa.gov> Subject: Fwd: April 11, 2017 Open Burning At Holston Army Ammunition Plant-Photo for your records

Ladies and Gentlemen,

We request a formal investigation of exactly what was being open air burned at HSAAP as indicated in this photograph.

The Tennessee Department of Environment and Conservation has thus far performed a perfunctory investigation which

has not yet been concluded. Additionally, we would like a response which includes the reason that HSAAP is not using

Super Critical Water Oxidation as an alternative to open burning as recommended in a March 2012 report from the U.S.

Army Corps of Engineers.

Thank you for your anticipated cooperation.

Mark and Connie Toohey Personal Phone / Ex. 6 .---- Forwarded message -----

From: Mark Toohey | Personal Email / Ex. 6 @gmail.com >

Date: Tue, Apr 18, 20 17 at 8:36 PM

Subject: Fwd: April 11, 2017 Open Burning At Holston Army Ammunition Plant-Photo for your records To: Laura Olah <info@cswab.org>

Hi, Laura,

Here is a picture Connie took on April 11, 2017 of open burning at HSAAP while there was an open burn ban issued due to fire hazard.

They claim that it is a cage burn. You might have to scroll around on the picture to see the plume.

Best regards

Mark and Connie ----- Forwarded message -----From: Mark Toohey | Personal Email / Ex. 6 | gmail.com> Date: Tue, Apr 18, 2017 at 8:25 PM

Subject: April 11, 2017 Open Burning At Holston Army Ammunition Plant-Photo for your records

To: Ronnie Wilhoit <ronnie.wilhoit@tn.gov>

